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EXAMINER

BARQADLE, YASIN M

ART UNIT

PAPER NUMBER

2153

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/719,148	<b>Applicant(s)</b> BICHOT ET AL.	
	<b>Examiner</b> YASIN M. BARQADLE	<b>Art Unit</b> 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/30/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### Response to Amendment

1. The amendment filed on May 07, 2008 has been fully considered but are not deemed persuasive.

- Claims 3 and 12 have been canceled.
- Claims 1-2, 4-11 and 13-14 are presented for examination.

### Response to Arguments

Applicant argues “it is submitted that Strecker does not teach, show, or suggest operations on or between communications buffers, which are believed to be similar in nature to Applicant's claimed message buffers.” (Page 6 third paragraph).

The Examiner respectfully disagrees. The invention as claimed is mainly about transmitting a data packet from a first device to a second device in a communication network, the second device allocating message buffer and communicating a message buffer size to the first device. See the underlined words in claim 1. "Method for transmitting data in a home communication network comprising a first device and a second device, wherein said first device includes means to produce a data packet and said second device includes means to use said data packet,... having said second device allocate a message buffer to said connection, said second device communicating the message buffer size to said first device...”

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Similar to Applicant's invention Strecker teaches "Apparatus for transferring blocks of information (data packets) from one node to a second node in a computer network." (See the title). Also Strecker teaches "Method and apparatus for transfer of packet-type information from the memory (24B) of one node (14) in a computer network to the memory (24C) of another node (16) in the network. ... Packets are sent from a named memory buffer (25A) at a first node (14)..." (Abstract). Therefore, Strecker clearly shows operation on or between communication buffers. Furthermore, Strecker is also concerned on both memory buffers as well as communications buffers.

It is also noted that claim 1 do not recite "communications buffers" as argued by the Applicant, instead the claim simply recites message buffers which indicates the stored information in the buffer as being a message. It is the device that communicates the message buffer size to another device "...second device communicating the message buffer size to said first device..." see claim 1, line 7.

The Applicant also argues that Strecker "... fails to teach the claim limitation of, "having said second device allocate a message buffer to said connection, said second device communicating the message buffer size to said first device". (Page 8 second paragraph).

Examiner respectfully disagrees. Strecker teaches "Data packet length is discretely variable. All the packets of the transfer except the last should be of

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an agree-upon size and the last packet should carry the remainder and be less than or equal to the preceding packets in size.” (Col. 5, lines 42-45).

Strecker also teaches “The maximum size message that may be exchanged between ports is determined by prior agreement and at a higher level protocol.”

As Strecker defines ports “A port includes a port processor, port buffer, and link components; the roles of these components is explained below.”(col. 12, lines 49-52).

Furthermore, Strecker teaches “The maximum allowable size must be determined by prior agreement between the involved ports, using a higher level protocol.” (col. 17, lines 17-21).

Based on the above quotes, the Examiner contends that Strecker clearly teaches allocating a message buffer and communicating the message buffer size to the first device through prior agreements exchanged between the involved port buffers.

The Applicant argues " Jardin was combined in the present office action with Strecker because it was stated that, ‘Strecker does not show using a function call to open the connection for writing data to the second device.’ Nowhere in Jardin is there a teaching, showing, or suggestion that would cure the deficiencies in the teachings of Strecker enumerated above.” (Page 8 paragraphs 2).

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The Applicant further argues “The combination of Strecker and Jardin is not motivated by the teachings of either Strecker or Jardin.” (Page 8 paragraphs 4).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Jardin is only relied upon to teach the limitation of using a function call to open a connection...” As indicated in the previous office action, Jardin teaches “The Berkeley Socket API is a set of C function calls used to support network communication. The Sockets API is not limited for use with the TCP/IP protocol, and may be used with other network protocols. In client computers (e.g., the client 410) using a TCP/IP protocol, the function calls include: socket( ), bind( ), connect( ), send( ), recv( ), and close( ). In server computers (e.g., the broker 420), the function calls include: socket( ), bind( ), listen( ), accept( ), send( ), recv( ), and close( ). These function calls are well known in the art... In one implementation, the broker 420 responds to the client 410 using Berkeley Socket APIs, e.g., read( ) and write( ) function call to read and write data, respectively. (Col. 7, lines 59 to col. 8, line 24).

In regard to the issue of motivation taught in either Strecker or Jardin, the examiner recognizes that obviousness can only be established by

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combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, advantages of modifying the system of Strecker so as to use the well known programming function call for reading/writing data, such as taught by Jardin, in order to efficiently execute, read and write data independent of their memory location.

It is also noted that the Applicant has argued on Page 7, fourth paragraph of the remarks dated September 18, 2007 how well known is “function call” and its advantages.

“One skilled in the art of Computer Science would recognize that a function call different from a command, in computer science, a subroutine (function, method, procedure or subprogram) is a portion of code within a larger program. The • subroutine performs a specific task and is relatively independent of the remaining code. The syntax of many programming languages includes support for creating self contained subroutines, and for calling and returning from them. In computing, a command is a directive to a computer program acting as an interpreter of some kind, in order to perform a specific task. Most commonly, a command is a directive to some kind of command line interface, such as a shell, (Source: Wikipedia

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<http://www.wikipedia.org>”). See Page 7, fourth paragraph of the remarks data September 18, 2007. Hence efficiently executing, read and write data independent of their memory location as a result of the benefits of using function call to execute a specific task independent of the remaining code is a knowledge generally available to one of ordinary skill in the art.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strecker US Patent No. (4777595) in view of Jardin et al. (U.S. Patent Number 6,912,588, hereinafter “Jardin”).

In referring to claim 1 and 9, Strecker discloses a method for transferring blocks of information from one node (node 14, fig.1) to a second node (node 16, fig. 1) in a computer network (network 10, fig. 1). Strecker shows,

- Opening a connection between said first device and said second device (“To read data from second node, a first port sends to the second node a special request packet (DATREQ) which carries the transfer length, and names and offsets of the source and destination buffers.”) col. 4, line 46-64); having said second device allocate a message buffer to said



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connection, said second device communicating the message buffer size to said first device:

*“Prior to a transfer, the names, offsets and lengths of buffers in other nodes are determined and exchanged through higher level protocols. The message packets of the present invention reference only the name, length (in bytes) and offset (i.e., location relative to the starting address of the buffer) into the buffer. Offset mapping is also implementation-dependent.”* (Strecker, Col. 3, lines 67 to col. 4, line 15 and col. 7, lines 54 to col. 8, lines 22. “The maximum size message that may be exchanged between ports is determined by prior agreement and at a higher level protocol.” (col. 17, lines 17-21 and col. 5, lines 42-45).

- Having said first device transmit said data packet to said second device, wherein said data packet is split and sent as payload in messages, where the size of the payload of each message is smaller or equal to said message buffer size (Col. 13, lines 3-10):

*“To write data from a first node to a second node, the first node puts an appropriate number of so-called SNTDAT packets onto the communications bus, each containing a part of the data and labeled with the name of the destination (i.e., receiving) buffer in the second node and the offset in the receive buffer for that particular packet. A transaction identifier unique to the group of packets also is transmitted, for use in the message confirmation process.”* (Strecker, col. 4, lines 16-24. see also col. 12, lines 45-55 and col. 13, lines 3-26)

Although Strecker shows substantial features of the claimed invention,

Strecker does not show using a function call to open the connection for writing data to the second device. Nonetheless this feature is well known in the art and

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would have been an obvious modification to the system disclosed by Strecker as evidenced by Jardin. In analogous art, Jardin whose invention is about a system for managing client requests in client-server networks, discloses using a function call to open a connection for writing data to the second device “The Berkeley Socket API is a set of C function calls used to support network communication. The Sockets API is not limited for use with the TCP/IP protocol, and may be used with other network protocols. In client computers (e.g., the client 410) using a TCP/IP protocol, the function calls include: socket( ), bind( ), connect( ), send ( ), recv( ), and close( ). In server computers (e.g., the broker 420), the function calls include: socket( ), bind( ), listen( ), accept( ), send( ), recv( ), and close( ). These function calls are well known in the art... In one implementation, the broker 420 responds to the client 410 using Berkeley Socket APIs, e.g., read ( ) and write ( ) function call to read and write data, respectively.” (Col. 7, lines 59 to col. 8, line 24). Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Strecker so as to use the well known programming function call for reading/writing data, such as taught by Jardin, in order to efficiently execute, read and write data independent of their memory location.

In referring to claim 2

- Said payloads have a first maximum length independent of said first and second devices:

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A maximum transmission unit (MTU) is inherently implied in a packet switching network

- A second maximum length dependent of said second device is constituted by said message buffer size, the shortest of said first and second maximum lengths being retained for sending messages to said second device:

*“Data packet length is discretely variable. All the packets of the transfer except the last should be of an agreed-upon size and the last packet should carry the remainder and be less than or equal to the preceding packets in size.”* (Strecker, col. 5, lines 41-45)

A system that has nodes with different buffer sizes and a MTU based on the network, using the smallest of these sizes to send data packets is inherently implied

In referring to claim 4,

- another connection is opened by said second device to said first device for reading data from said first device:

*Strecker, col. 5, lines 3-7* (see full quote above and col. 4, lines 16-24; col. 12, lines 45-55 and col. 13, lines 3-26)

In referring to claim 5,

- Said first device comprises at least one data storage element for storing said data packet:

*Strecker, Fig. 1* shows the first device **14** has a data storage element **25A**

In referring to claim 6,

- Said device comprises more than one storage element, each of said storage elements being identified by an identifier:

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Strecker, Fig. **1** shows the first device **14** has data storage elements **25A** and **25B**

In referring to claim 7,

- Said second device comprises at least one data storage element for storing said data packet:

Strecker, Fig. **1** shows the second de

In referring to claim 10,

It is directed to a method for receiving data in a receiving device coupled to a transmitter device in a home network, and similarly recites the additional feature of claims 1 and 9 mentioned above. Therefore, it is rejected with the same rationale.

In referring to claim 11

- Said payloads have a first maximum length independent of said first and second devices:

A maximum transmission unit (MTU) is inherently implied in a packet switching network

- A second maximum length dependent of said second device is constituted by said message buffer size, the shortest of said first and second maximum lengths being retained for sending messages to said second device:

*“Data packet length is discretely variable. All the packets of the transfer except the last should be of an agreed-upon size and the last packet should carry the remainder and be less than or equal to the preceding packets in size.”* (Strecker, col. 5, lines 41-45)

A system that has nodes with different buffer sizes and a MTU based on the network, using the smallest of these sizes to send data packets is inherently implied

In referring to claim 13,

- Wherein said receiver device comprises at least one data storage element for storing said data packet:

Strecker, Fig. **1** shows the first device **14** has a data storage element **25A**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strecker and Jardin in further in view of Muller et al. (U.S. Patent Number 6,021,132, hereinafter "Muller").

Although Strecker shows substantial features of the claimed invention, Strecker and Jardin do not show the buffers are dynamically allocateable. Nonetheless this feature is well known in the art and would have been an obvious (addition/modification) to the system disclosed by Strecker and Jardin as evidenced by Muller. In analogous art, Muller discloses a shared memory management in a switched network element. Muller shows: "The shared memory manager dynamically allocates buffers on behalf of the input ports and

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tracks ownership counts for each of the buffers based upon information provided by the input ports and the output ports.” (Muller, col. 2, lines 49-52). Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Strecker and Jardin so as to dynamically allocate memory to the memory buffer, such as taught by Muller, in order to efficiently allocate memory to operations that need it.

### **Conclusion**

**THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to YASIN M. BARQADLE whose telephone number is (571)272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yasin M Barqadle/  
Primary Examiner, Art Unit 2153